

Double vision and Fresnel prisms

We have given you this factsheet because you have been diagnosed with double vision. It explains what double vision is and how it can be treated using Fresnel prisms. We hope that this factsheet answers some of the questions you may have. If you have any further questions or concerns please contact us using the details at the end of this factsheet.

What is double vision?

Double vision (also known as diplopia) is when you look at one object but can see two images. How you see the two images may not always be the same. For example, you may see the images as one above the other, side by side, or a combination of both. You may see the images as very close together (sometimes overlapping) or there may be a big gap between the images.

You may experience double vision all the time or it may come and go. For some people, it may only happen when they are looking in a particular direction.

There are two types of double vision:

Binocular (both eyes)

Binocular double vision is when both of your eyes are affected. It can be caused by your two eyes not working together properly. This may be due to you having an eye condition, such as a squint, or an eye movement problem that causes your eyes to look in different directions. This type of double vision goes away when either one of your eyes is closed.

Monocular (one eye)

Monocular double vision is when you have double vision in only one of your eyes or when you have just one eye open. Double vision that affects only one eye is less common than double vision affecting both eyes. It is linked to other eye conditions, such as dry eyes (where the eyes do not produce enough tears) or cataracts (clouding of the lens in the eye).

How is binocular double vision treated?

Binocular double vision can be treated in a number of ways. Your orthoptist may recommend you try:

- wearing a Fresnel prism or prism glasses to join the two images you can see together so that you can only see one image (single vision)
- · wearing a patch over one of your eyes to block out the second image
- different eye exercises that may help control your double vision

This factsheet will focus on Fresnel prisms as a treatment for double vision. If you need information about other treatment options, please read our 'Squint in adults' factsheet.

What is a Fresnel prism?

Prisms are special lenses, which we use to help double vision. A Fresnel prism is a thin, plastic sheet consisting of a row of small prisms. It can be cut to size and applied to the surface of one lens of your glasses.

Fresnel prisms come in a range of different strengths. The orthoptist will assess your eyes to decide which strength is right for you. The prism should give you single vision when looking straight ahead, but you may still have some double vision when you look away from the centre. Moving your head rather than your eyes when looking around may help to reduce the double vision.

Why do I need a Fresnel prism?

Fresnel prisms are usually the best option to help double vision when it first starts. This is because we can fit them onto your glasses quickly and easily. There is no need to change your glasses.

The prism can correct the double vision while you are wearing it, but it cannot cure the double vision. You will still have double vision when you are not using the prism.

Looking after your prism

You can use a nailbrush or toothbrush to clean the prism.

- 1. Mix some liquid soap into some warm water.
- 2. Dip the brush into the water, then gently brush the prism in line with the lines on the prism.
- 3. Gently rinse the soapy water off and pat the prism dry with a cloth or tissue.
- 4. Hold the prism in place on the glasses while you are cleaning it, so that it does not fall off.

If the prism falls off your glasses, you can put the prism back on by pouring a little water onto the surface of the glasses lens, and then pressing the prism back onto the lens with the smooth side against the glass. The prism is cut so that it will only fit on one direction. Refitting the prism can be fiddly. If you have any difficulty in doing this, contact your orthoptist who will be able to help.

What should I do if the prism is not helping the double vision?

You may need to wear a different strength prism if your eyes change. In some cases, the double vision may get better so that you do not have double vision without the prism but start to get double vision with the prism. If this happens, you can remove the prism from your glasses. You should contact your orthoptist if anything changes with your vision.

Risks and side effects

The lines on the Fresnel prism may make your vision blurred, and can cause some dazzle and distortion. Usually, these problems are only noticeable when we put the prism on your glasses and should settle after a few days.

How long will I have to wear the Fresnel prism?

This will depend on what causes your double vision. Some double vision gets better over time so that you can eventually stop using the prism. Some people go on to have a permanent prism in the lenses of their glasses instead of the Fresnel prism.

In some cases, we can perform an operation on the eye muscles to correct the double vision instead of using a prism. A small number of people do continue using a Fresnel prism for the long term. Your orthoptist and eye doctor will discuss the options with you and you can decide together on the best choice for you.

Frequently asked questions

Can I drive a car with double vision?

No, you cannot drive with double vision. You must stop driving immediately and tell the DVLA if you have double vision.

After the DVLA has reviewed your case, you may be able to return to driving if your double vision is well controlled (for example, with a prism or a patch).

Even if your double vision is controlled with a prism, you must tell the DVLA that you are having this treatment and wait for their approval before driving again.

Contact us

Orthoptic department Southampton eye unit

Telephone: **023 8120 4789** (Monday to Friday, 8.30am to 5pm)

Useful links

For further information on squints, please visit the squint clinic website: www.squintclinic.com

For the 'Squint in adults' factsheet, please visit the UHS website: www.uhs.nhs.uk/for-patients/patient-information-leaflets

For more information on double vision, please visit the NHS website: www.nhs.uk/conditions/double-vision

To contact the DVLA, please visit the GOV.UK website: www.gov.uk/contact-the-dvla/y/driving-and-medical-issues

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